Government Policies Toward the FX Market

✦ Why are there government policies toward FX rates?
  » FX rate is usually the most important single price for small open economies
✦ Range of choices:
  » Pure float → fixed rate → single currency
  » Floating rates
    ◆ Clean float ⇒ no official intervention in the FX market
    ◆ Dirty float ⇒ sort type of official intervention
  » Fixed rates
    ◆ Which currency to pick as a pegging partner
    ◆ What numerical rate to pick
    ◆ When to allow a change in the peg
✦ Exchange controls as a policy choice

Why Government Policies Toward FX Rates

✦ FX rate is usually the most important single price for small open economies
  » FX volatility often higher than desired ⇒ policies to peg rates
  » Promote exports or discourage imports ⇒ target rate level
✦ Exchange rate system influences scope for other macroeconomic policies
  » Floating rate: Allows the government some scope to establish an independent monetary policy
  » Pegged rate: Requires a government willing to adopt monetary policies of another nation
✦ Exchange rate system for a country is part of the country’s international economic/financial relations
A Primer on Exchange Rate Systems and Macroeconomic Policy Constraints

Consider the Purchasing Power Parity formula

\[ P(US) = P(UK) \times \text{Spot} \ (\$/£) \]

- **Under pegged exchange rates**
  - US inflation must match UK inflation
  - \( \Rightarrow \) US monetary policy similar to UK monetary policy
  - If pegged rate is credible, expected exchange rate change = 0
  - \( \Rightarrow \) US interest rate similar to UK interest rate
  - \( \Rightarrow \) pegging partners must have similar monetary policies

- **Under floating exchange rates**
  - US inflation and interest rates need not match UK inflation
  - A country can use monetary stimulus or low interest rate, and let floating spot rate adjust to maintain PPP

The Range of Exchange Rate Systems

- **Pure float \( \rightarrow \) Fixed rate \( \rightarrow \) Single currency**

1. Pure float, free float, clean float
2. Dirty float, managed float
3. Floating within a band, target zone
4. Sliding band
5. Crawling band
6. Crawling peg
7. Fixed (but adjustable) exchange rate
8. Currency board
9. “Dollarization”
10. Monetary union
1. Pure float, free float, clean float

- **Main Features**
  - FX rate freely determined by private demand and supply

- **Main Benefits**
  - FX rates adjust automatically to changes in D & S
  - No international reserves needed

- **Main Shortcomings**
  - FX rate volatility may limit trade and investment flows
  - Country needs to run its own monetary policy and establish credible monetary and fiscal policies, otherwise (?)

- **Key Episodes**
  - No real examples, but US, Germany, Switzerland, and Japan come close

2. Dirty float, managed float

- **Main Features**
  - Occasional official intervention

- **Main Benefits**
  - Similar to free float, except need for higher international reserves
  - May dampen “excessive” exchange rate volatility

- **Main Shortcomings**
  - Central bank behavior may introduce uncertainty
  - Effects of intervention short-lived, possibly destabilizing

- **Key Episodes**
  - Many advanced economies (Canada, Australia, Japan) + Mexico in 1994-95
3. Floating within a band, target zone

- **Main Features**
  - Center of band fixed
  - Nominal exchange rate allowed to fluctuate somewhat freely

- **Main Benefits**
  - Some flexibility + credibility that zone can be maintained
  - Center point and band help guide public’s expectations

- **Main Shortcomings**
  - Center value and/or band must be consistent w/ macro policies
  - Wide bands and realignments weaken credibility
  - Can be subject to speculative attacks

- **Key Episodes**
  - European Exchange Rate Mechanism (ERM) 1979-1998

4. Sliding band

- **Main Features**
  - No commitment to a central parity, it changes periodically
  - Adaptation of target zone to high inflation economy

- **Main Benefits**
  - Allows periodic change for countries with high inflation
  - No need for country to experience severe real appreciation

- **Main Shortcomings**
  - Timing of central parity adjustment is unknown ⇒ uncertainty
  - May induce high interest rate volatility

- **Key Episodes**
5. **Crawling band**

- **Main Features**
  - Central parity changes over time based on given formula
  - Common crawls: past or future target inflation differentials

- **Main Benefits**
  - Allows high inflation country to have a band, without large stepwise parity adjustments

- **Main Shortcomings**
  - Setting the rate of crawl criteria is tricky
    - If backward looking - inertia, get stuck with high inflation
    - If forward looking - may set wrong target crawl, induce inflation

- **Key Episodes**
  - Israel: 1991-present; Chile: 1986-1992; others

6. **Crawling peg**

- **Main Features**
  - Nominal peg changes over time based on given formula

- **Main Benefits**
  - Periodic changes allow high inflation country to avoid severe real exchange rate overvaluation

- **Main Shortcomings**
  - A backward looking peg based on past inflation induces inertia
  - Hard to accommodate needed real exchange rate changes

- **Key Episodes**
  - Chile, Columbia, Brazil in 1960s and 1970s
7. Fixed (but adjustable) exchange rate

Main Features
- Nominal rate is fixed, but no obligation to maintain it forever
- No tight constraints on monetary or fiscal policymakers

Main Benefits
- Inspires macroeconomic discipline to maintain the peg
- Option to devalue is like an "escape clause"

Main Shortcomings
- Exchange rate changes sometimes large and disruptive
- Realignments delayed, one-way speculation against central bank

Key Episodes
- Bretton Woods: 1944-1973
- Many emerging countries for last 20 years (e.g. Thailand 1997)

8. Currency Board

Main Features
- Strict fixed rate system with institutional (i.e. legal or constitutional) constraint on monetary policy
- Domestic money can be issued only when backed by inflows of foreign exchange

Main Benefits
- Maximum monetary policy credibility

Main Shortcomings
- No separate monetary or exchange rate policy is available
- No lender of last resort for local financial institutions

Key Episodes
- Currently: Hong Kong, Estonia, Argentina
- Historically: Many British and French colonies
9. “Dollarization”

![Main Features]
- Extreme form of currency board, unilateral decision
- Country completely abandons its monetary autonomy

![Main Benefits]
- Absolute credibility - domestic monetary authorities cannot “surprise” the public

![Main Shortcomings]
- Like the currency board, no flexibility to use monetary or exchange rate policy to adjust to macroeconomic shocks
- Unilateral choice ⇒ no influence on monetary policy

![Key Episodes]
- Panama, several Caribbean islands, Argentina may be next

10. Monetary Union

![Main Features]
- Group of states or nations mutually agree on a single money
- Single monetary policy for entire union

![Main Benefits]
- No exchange rate risk across members
- Stimulus to trade and financial flows across members

![Main Shortcomings]
- No possibility to use separate monetary policy for any region
- Forces adjustment onto (1) factor mobility, (2) price and wage flexibility, and (3) fiscal transfers when shocks hit one region

![Key Episodes]
- U.S. since mid-1800s; European Monetary Union (1999+)
Exchange Controls as a Policy Choice

- Exchange controls another option to defend fixed rate
- Suppose official rate is $1/£; i.e. US wants overvalued $
  » Demand for £ > supply, but US does not want to intervene with reserves
  » Controls limit demand to £30 billion, with a marginal value of $1.50/£
  » Social loss is triangle ACE
- Why controls?
  » Need fewer reserves
  » Auction profits = area ACDF
  » Officials sell quota rights, get discretionary power

The Market for UK Pounds

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<th>Supply (D)</th>
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<td>$1.20/£</td>
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<td>30 55 55</td>
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Textbook example, p. 410

Summary: Government Policies Toward the FX Market

- The exchange rate system is key government choice
  » FX rate is usually the single most important price
- Many FX systems possible: pure float → pegged (but adjustable) rate → single currency
  » FX system determines whether nation retains a separate (independent) monetary and exchange rate policy
  » Monetary and exchange rate policies used to stimulate or dampen economic activity to meet national policy objectives
  » If no independent monetary and exchange rate policy, then nation must rely on (1) factor mobility, (2) price and wage flexibility, and (3) fiscal transfers when shocks hit one region
- Selection of exchange rate system depends on many factors - discussed further in Chapter 24.